

Appl. No. 09/976,624

REMARKS

Claims 105, 111, 112 and 113 are amended. Claims 115-129 are cancelled. Claim 130 is added. Claims 105, 111-114 and 130 are pending in the application.

With respect to the Examiner's request for restriction, applicant hereby affirms the constructive election to prosecute group I (claims 105 and 111-114). Accordingly, claims 115-129 are cancelled from the application.

Claims 105 and 111-114 stand rejected under 35 U.S.C. § 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to reasonably convey to one skilled in the relevant art that the inventor had possession of the claimed invention at the time the application was filed. The Examiner states that "the instant specification does not provide support for any molecules consisting of silicon and carbon". The Examiner additionally states that the specification only provides support for SiC_x . The Examiner indicates that the recitation of molecules consisting of silicon and carbon "amounts to new matter because it broadens the scope of the invention". Applicant disagrees.

The Examiner specifically notes at page 3, section 3 of the present action that the specification provides support for SiC_x . SiC_x consists of silicon and carbon. Accordingly, molecules of SiC_x consist of silicon and carbon as required by the recited "molecules consisting of silicon and carbon" of claim 105. Accordingly, the claim 105 recited "molecules consisting of silicon and carbon" is fully supported by the specification and does not comprise "new matter". Applicant therefore respectfully requests withdrawal of the Examiner's § 112 rejection of dependent claim 105 and claims 111-114 which depend therefrom in the Examiner's next action.

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Claims 105-107, 112 and 113 stand rejected under 35 U.S.C. § 102(e) as being anticipated by Rostoker, U.S. Patent No. 5,744,399. Claim 105 is amended to remove unnecessary language from the claim. Such amendment is not intended to limit the scope of the claim. Applicant notes that claims 106 and 107 were cancelled in a previous response and are no longer pending in the application. The Examiner is reminded by direction to MPEP § 2131 that anticipation requires each and every element of a claim to be disclosed in a single prior art reference. Claims 105 and 112-113 are allowable over Rostoker for at least the reason that Rostoker fails to disclose each and every limitation in any of those claims.

Independent claim 105 recites providing a mass adjacent a conductive electrical component, the mass comprising pores having a size and the mass comprising molecules consisting of silicon and carbon. The Examiner indicates at page 4 of the present action that Rostoker discloses providing a mass having pores of size, the mass comprising silicon in the form of SiO_2 and carbon in the form of fullerene. Applicant notes that neither silicon dioxide nor fullerene qualify as the recited molecules consisting of silicon and carbon. Rostoker therefore does not disclose the claim 105 recited mass comprising pores having a size, the mass comprising molecules consisting of silicon and carbon. Accordingly, independent claim 105 is not anticipated by Rostoker. Further, Rostoker does not suggest the recited mass comprising pores, and comprising molecules consisting of silicon and carbon and claim 105 is therefore not rendered obvious by Rostoker.

Claims 112-113 are amended to properly depend from claim 105. Claims 112 and 113 are allowable over Rostoker for at least the reason that they depend from allowable base claim 105.

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Claims 108-111 stand rejected under 35 U.S.C. § 103(a) as being unpatentable over Rostoker in view of Gnade, U.S. Patent No. 5,494,858. Applicant notes that claims 108-110 were cancelled in a previous response and are no longer pending in the application. The Examiner is reminded by direction to MPEP § 2143 that a proper obviousness rejection has the following three requirements: 1) there must be some suggestion or motivation to modify or combine reference teachings; 2) there must be a reasonable expectation of success; and 3) the combined references must teach or suggest all of the claim limitations. Claim 111 is amended to properly depend from claim 105. Claim 111 is allowable over Rostoker as combined with Gnade for at least the reason that the cited references, individually or as combined, fail to disclose or suggest each and every limitation of claim 111.

As discussed above with respect to independent claim 105, Rostoker does not disclose or suggest the recited mass adjacent a conductive electrical component, the mass comprising pores having a size and comprising molecules consisting of silicon and carbon.

As discussed by the Examiner at page 5 of the present action, Gnade teaches converting a spun-on liquid to SiO₂ by curing. Gnade does not disclose or suggest the claim 105 recited providing a mass adjacent a conductive electrical component, the mass comprising pores having a size and comprising molecules consisting of silicon and carbon. As combined, Gnade and Rostoker fail to disclose or suggest the claim 105 recited mass comprising molecules consisting of silicon and carbon, and comprising pores having a size.

Accordingly, independent claim 105 is not rendered obvious by the combination of Gnade and Rostoker and is allowable over these references. Dependent claim 111 is allowable

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over the combination of Gnade and Rostoker for at least the reason that it depends from allowable base claim 105.

Claim 114 stands rejected under 35 U.S.C. § 103(a) as being unpatentable over Rostoker in view of Matthews, U.S. Patent No. 5,171,713 or in view of TeVelde, U.S. Patent No. 4,561,173. Neither Matthews nor TeVelde teach or suggest the claim 105 recited providing a mass adjacent a conductive electrical component, the mass comprising molecules consisting of silicon and carbon. As combined, Rostoker in view of Matthews or in view of TeVelde fail to teach or suggest the claim 105 recited mass adjacent a conductive electrical component, the mass comprising molecules consisting of silicon and carbon. Accordingly, independent claim 105 is not rendered obvious by the cited combinations of Rostoker and either Matthews or TeVelde. Dependent claim 114 is allowable over the cited combinations of references for at least the reason that it depends from allowable base claim 105.

New claim 130 does not add "new matter" to the application since the claim is fully supported by the specification as originally filed. Support for claim 130 can be found in the specification at, for example, page 7, lines 13-18; and the claims as originally filed.

For the reasons discussed above, claims 105 and 111-114 are allowable and claim 130 is believed allowable. Accordingly, applicant respectfully requests formal allowance of claims 105 and 111-114 in the Examiner's next action.

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Respectfully submitted,

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TECHNOLOGY CENTER 2800

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Filing DateOctober 12, 2001
Inventor.....Juengling et al.
Assignee.....Micron Technology, Inc.
Group Art Unit.....2813
ExaminerKielin, Erik J.
Attorney's Docket No.MI22-1789
Title: Methods of Forming Materials Between Conductive Electrical Components, and
Insulating Materials

**VERSION WITH MARKINGS TO SHOW CHANGES MADE ACCOMPANYING
RESPONSE TO SEPTEMBER 30, 2002 OFFICE ACTION**

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In the Claims

TECHNOLOGY CENTER 2800

The claims have been amended as follows. Underlines indicate insertions and
~~strikeouts~~ indicate deletions.

105. (Amended) A method of forming a material adjacent a conductive
electrical component comprising:

providing a mass adjacent the conductive electrical component, the mass
comprising pores having a size and the mass comprising molecules consisting of
silicon and carbon;

forming a layer overlying the mass; and

vaporizing a portion of the mass ~~wherein the vaporizing expands to~~
expand the size of the pores within the mass.

111. (Amended) The method of Claim 105, further comprising forming a
layer over the mass before the partially vaporizing.

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112. (Amended) The method of Claim 105, further comprising forming a layer over the mass after ~~partially~~ the vaporizing.

113. (Amended) The method of Claim 105 ~~107~~, where the conductive material electrical component comprises a pair of conductive lines.

Claims 115-129 are cancelled.

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